

Work Order ID 139190

November 16, 2015 1:16:42 PM

Qty 2 to ship Nov 23/15
139190 Qty 2 to stock.

Page 1

Item ID: D3136-045

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Window Assembly

Start Date: 11/16/2015 Start Qty: 4.00

4

Cust Item ID:

Required Date: 11/23/2015 Req'd Qty: 4.00

4

Customer:

Reference:

Approvals: Process Plan: SA 20151116

Date:

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D3136	F								
100	FLOW WATER JET	0.00							
100									
Waterjet	Memo	0.01							
FLOW CNC Waterjet	1-Cut as per Dwg Dwg Rev: <u>E</u> Prog Rev: <u>E</u> 2-Deburr if necessary								
110	QC2- Inspect parts off machine FAI/FAIB	0.00							
110									
QC	Memo	0.00							
Quality Control									
120	QC8- Inspect parts - second check	0.00							
120									
QC	Memo	0.00							
Quality Control									

DAS
38
9-88
NOV 18 2015

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QS1042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

139190

Page 2

N900040100

Setup Start *NS1*

Stop *NS2*

Start Date: 11/16/2015 **Start Qty:** 4.00 ***4***

Cust Item ID:

Required Date: 11/23/2015 **Req'd Qty:** 4.00 ***/****

Customer:

Reference:

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Operation Description

Set Up/ Run Hours

Tool ID**Tool #****Plan
Code**

**Accept
Qty**

Reject
QtyReject
Number

**Insp.
StampAS
07
9-89**

130

0.00

130

THERMOFORMING MACHINE

0.01

Thermoform

Memo

Thermoforming Machine

1-Thermoform as per Dwg D3136 and Work Instruction WI006

Dwg Rev. F

WI Rev. 5

2- Engrave Part # and Batch # , and affix labels (D3108-9)

150

0.00

150

HAND FINISHING THERMOFORMING

0.02

HandThermo

Memo

Hand Finishing Thermoforming

Water sand and buff to remove scratches as required

DAS
07
9-89

x5 _____ 15/4/18

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY			
Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐
Design	☐	Operator	☐	Bending	☐	Set-up	☐
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐
Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐
Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐
Internal Transport	☐	Poor Information	☐	Crushing	☐	Countersink	☐
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐
Substation	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐
Past Expiry Date	☐	Manufacturing Process	☐	OTHER : _____			
Misidentified	☐	Past Due	☐				

Work Order ID 139190

November 16, 2015 1:16:43 PM

139190

Page 3

Item ID: D3136-045 Accept ***N19000040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Window Assembly
Start Date: 11/16/2015 Start Qty: 4.00 ***4*** Cust Item ID:
Required Date: 11/23/2015 Req'd Qty: 4.00 ***4*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
170	QC5- Inspect part completeness to step on W/O	0.00							DAS 38 9-89
170						(5)			NOV 18 2015
QC	Memo	0.00							
Quality Control	Inspect edge and window deformation, wrap in plastic								
180	Identify as per dwg & Stock Location	0.00							
180						5			DAS 6 9-89
Packaging	Memo	0.00							NOV 19 2015
Packaging									
190	QC21- Final Inspection - Work Order Release	0.00							
190									
QC	Memo	0.01							
Quality Control									

NOV 19 2015

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

Picklist Print

November 16, 2015 1:16:54 PM

Page 1

Work Order ID: 139190

139190

Parent Item: D3136-045

D3136-045

Parent Item Name: Window Assembly

Start Date: 11/16/2015

Required Date: 11/23/2015

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP REV:C 15.02.13 NEW ISSUE DD VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D3108-9		Manufactured	No				Each	0.0000		8			
D3108-9									**	10.			DL 15/11/18.
Decal													
MACRLICS.125		Purchased	No				sf	288.4670		17.89474			
MACRI ICS 125									**				02/15/17
1/8" Polycast II Sheet													

Location

MAT019

Loc Qty

288.467

Loc Code

m130047

22.667

m131524

55.1

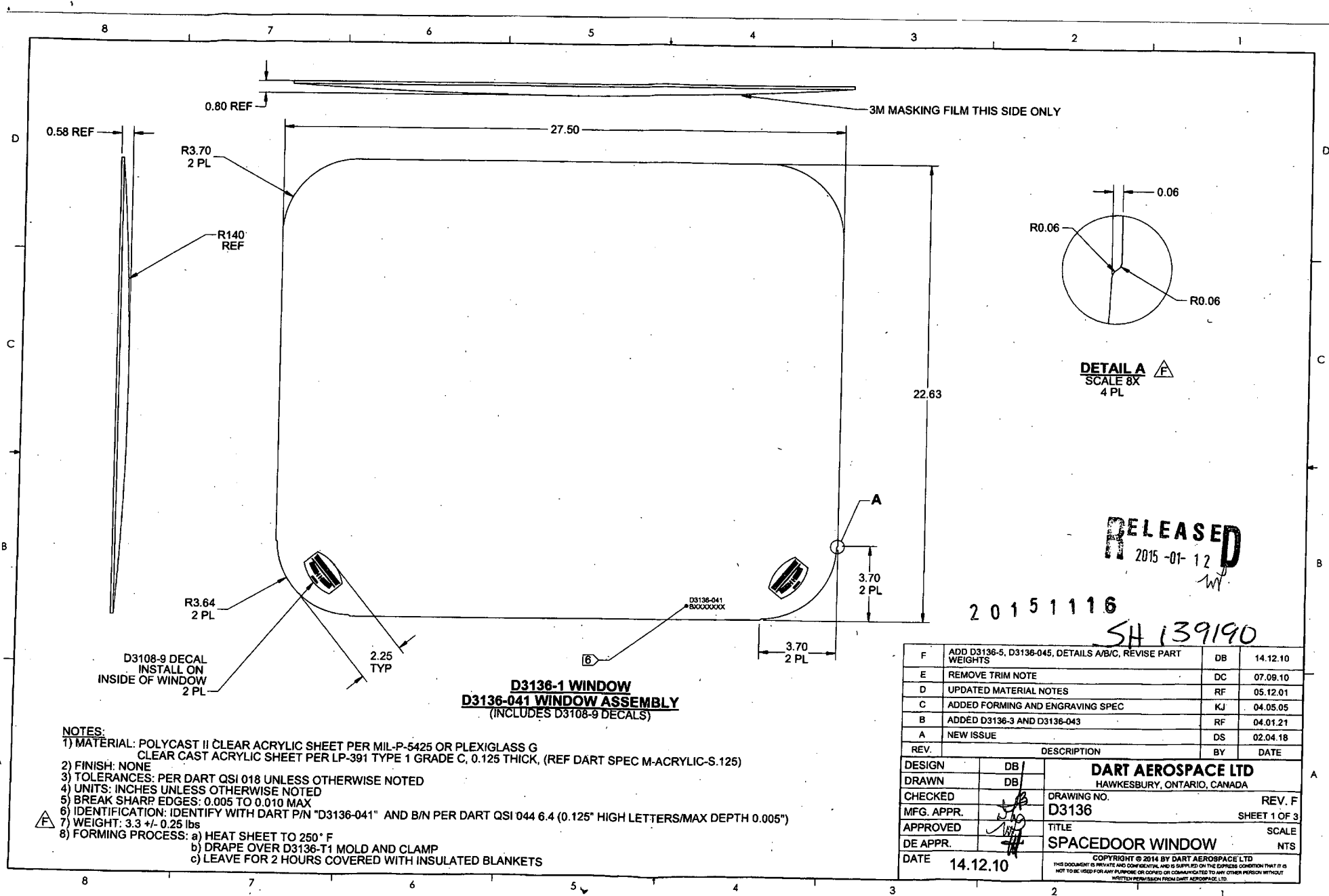
m132799

18.7

m133510

192

10
18



DETAIL A
SCALE 8X
4 PL

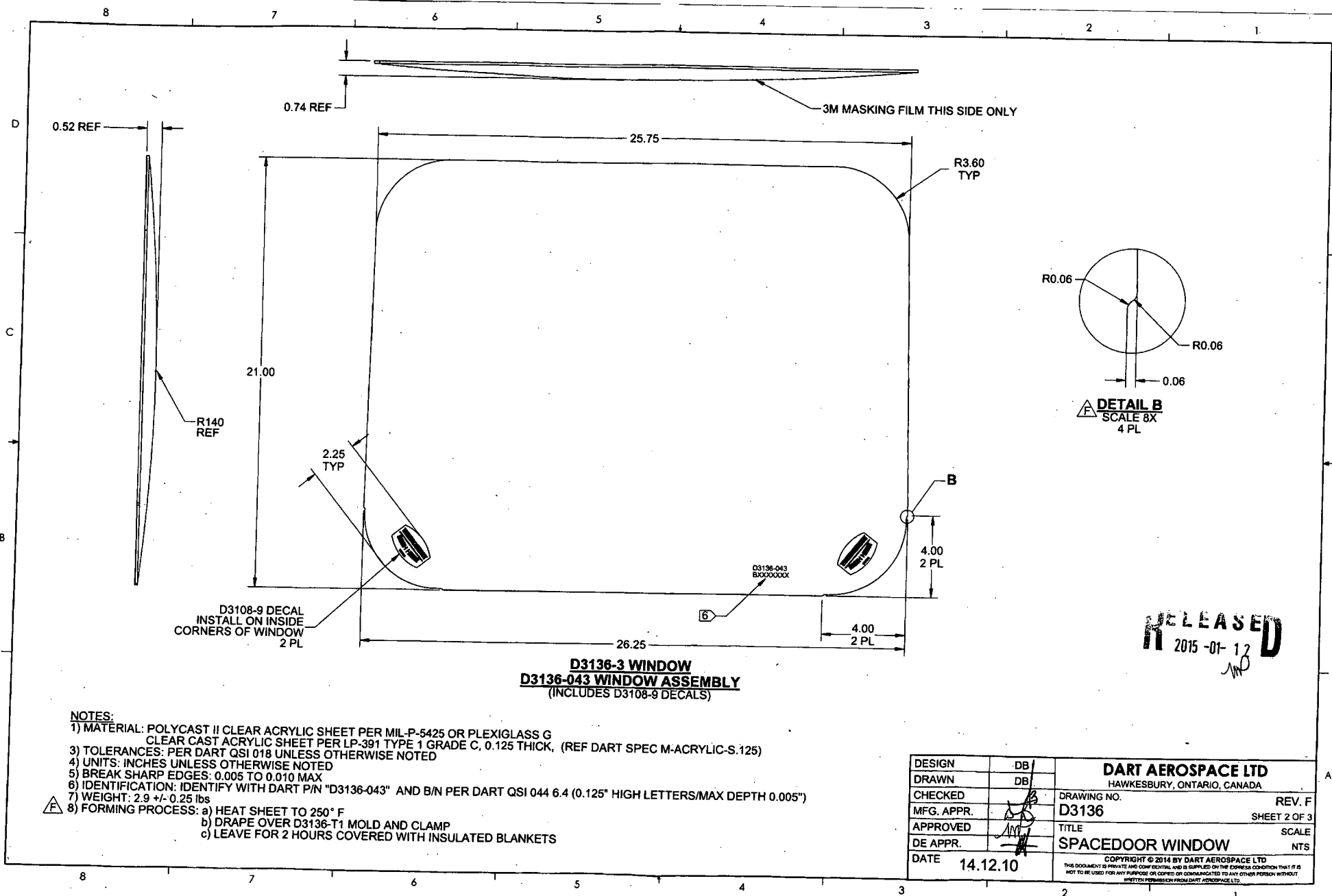
RELEASED
2015-01-12
WJ

20151116
SH 139190

**D3136-1 WINDOW
D3136-041 WINDOW ASSEMBLY**
(INCLUDES D3108-9 DECALS)

- NOTES:**
- 1) MATERIAL: POLYCAST II CLEAR ACRYLIC SHEET PER MIL-P-5425 OR PLEXIGLASS G
CLEAR CAST ACRYLIC SHEET PER LP-391 TYPE 1 GRADE C, 0.125 THICK, (REF DART SPEC M-ACRYLIC-S.125)
 - 2) FINISH: NONE
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3136-041" AND B/N PER DART QSI 044 6.4 (0.125" HIGH LETTERS/MAX DEPTH 0.005")
 - 7) WEIGHT: 3.3 +/- 0.25 lbs
 - 8) FORMING PROCESS: a) HEAT SHEET TO 250° F
b) DRAPE OVER D3136-T1 MOLD AND CLAMP
c) LEAVE FOR 2 HOURS COVERED WITH INSULATED BLANKETS

F	ADD D3136-5, D3136-045, DETAILS A/B/C, REVISE PART WEIGHTS	DB	14.12.10
E	REMOVE TRIM NOTE	DC	07.09.10
D	UPDATED MATERIAL NOTES	RF	05.12.01
C	ADDED FORMING AND ENGRAVING SPEC	KJ	04.05.05
B	ADDED D3136-3 AND D3136-043	RF	04.01.21
A	NEW ISSUE	DS	02.04.18
REV.	DESCRIPTION	BY	DATE
DESIGN	DB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	DB		
CHECKED		DRAWING NO.	REV. F
MFG. APPR.		D3136	SHEET 1 OF 3
APPROVED		TITLE	SCALE
DE APPR.		SPACEDOOR WINDOW	NTS
DATE	14.12.10	COPYRIGHT © 2014 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	



RELEASED
2015-01-12

D3136-3 WINDOW
D3136-043 WINDOW ASSEMBLY
(INCLUDES D3108-9 DECALS)

NOTES:

- 1) MATERIAL: POLYCAST II CLEAR ACRYLIC SHEET PER MIL-P-5425 OR PLEXIGLASS G CLEAR CAST ACRYLIC SHEET PER LP-391 TYPE 1 GRADE C, 0.125 THICK, (REF DART SPEC M-ACRYLIC-S.125)
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3136-043" AND B/N PER DART QSI 044 6.4 (0.125" HIGH LETTERS/MAX DEPTH 0.005")
- 7) WEIGHT: 2.9 +/- 0.25 lbs
- 8) FORMING PROCESS: a) HEAT SHEET TO 250° F
b) DRAPE OVER D3136-T1 MOLD AND CLAMP
c) LEAVE FOR 2 HOURS COVERED WITH INSULATED BLANKETS

DESIGN	DB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	DB		
CHECKED	DB	DRAWING NO.	REV. F
MFG. APPR.	DB	D3136	SHEET 2 OF 3
APPROVED	DB	TITLE	SCALE
DE APPR.	DB	SPACEDOOR WINDOW	NTS
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